FACT SHEET

as required by LAC 33:IX.3111 for major LPDES facilities, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0051217; AI 6634; PER20080001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. **THE APPLICANT IS:** Louisiana Department of Public Safety and Corrections
Louisiana State Penitentiary
Business Office
Highway 66
Angola, Louisiana 70712

II. **PREPARED BY:** Darlene Bernard

DATE PREPARED: April 16, 2009

III. **PERMIT ACTION:** reissue LPDES permit LA0051217, AI 6634; PER20080001

LPDES application received: July 28, 2008

The application was not received 180 days prior to the expiration date of the permit, as required by the previous permit.

Previous LPDES permit effective: January 1, 2004
Previous LPDES permit expired: December 31, 2008

IV. **FACILITY INFORMATION:**

A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Angola State Prison and State Housing.

B. The permit application does not indicate the receipt of industrial wastewater.

C. The facility is located near the end of LA Highway 66, about 23 miles west of the Town of St. Francisville, West Feliciana Parish.

D. The treatment facility consists of a two-cell oxidation pond. Disinfection is by chlorination.

E. Outfall 001

Discharge Location: Latitude 30° 56' 26" North
Longitude 91° 35' 31" West

Description: treated sanitary wastewater

Design Capacity: 1.5 MGD
Type of Flow Measurement which the facility is currently using:

Continuous Recorder

V. RECEIVING WATERS:

The discharge is at the pumping station that pumps the wastewater and the contents of Bob's Bayou, the stormwater drainage for Angola, across the Mississippi River levee into a dedicated canal that flows directly into the Mississippi River in Subsegment 070201 of the Mississippi River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The **critical low flow** (7Q10) of the Mississippi River is 141,955 cfs.

The **hardness value** is 156.4 mg/l and the **fifteenth percentile value for TSS** is 42.1 mg/l.

The designated uses and degree of support for Subsegment 070201 of the Mississippi River Basin are as indicated in the table below[1/]:

Overall Degree of Support for Segment	Degree of Support of Each Use						
Full	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Full	Full	Full	N/A	Full	N/A	N/A

[1/] The designated uses and degree of support for Subsegment 070201 of the Mississippi River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 070201 of the Mississippi River Basin, is listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS) as habitat for the Pallid Sturgeon, which is listed as an endangered species. Since effluent limitations are established in the permit to ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat, LDEQ has determined that the issuance of this LPDES permit is not likely to adversely affect the Pallid sturgeon or its aquatic habitats. As instructed by the FWS in a letter dated November 17, 2008, from Rieck (FWS) to Nolan (LDEQ), this fact sheet has been sent to the FWS for review and consultation.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Darlene Bernard
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 070201, Mississippi River-from Old River Control Structure to Monte Sano Bayou, is not listed on LDEQ's Final 2006 303(d) List as impaired, and to date no TMDL's have been established. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by any future TMDLs.

Final Effluent Limits:

OUTFALL 001 –

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD_5	375	30 mg/l	45 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this treatment type and size which discharge into the Mississippi River and previous permit conditions.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
TSS	1126	90 mg/l	135 mg/l	Since there are no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.

Other Effluent Limitations:

1) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C, the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

2) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

3) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.a, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

Toxicity Characteristics

In accordance with EPA's Region 6 Post-Third Round Toxics Strategy, permits issued to treatment works treating domestic wastewater with a flow (design or expected) greater than or equal to 1 MGD shall require biomonitoring at some frequency for the life of the permit or where available data show reasonable potential to cause lethality, the permit shall require a whole effluent toxicity (WET) limit (*Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards*, April 16, 2008 VERSION 6).

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates the effects of synergism of the effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. LAC 33:IX.1121.B.3. provides for the use of biomonitoring to monitor the effluent for protection of State waters. The biomonitoring procedures stipulated as a condition of this permit are as follows:

The permittee shall submit the results of any biomonitoring testings performed in accordance with the LPDES Permit No. LA0051217, **Biomonitoring Section** for the organisms indicated below.

Chronic toxicity tests are generally required of those discharges with potential toxicity using critical dilutions as determined by an applicable dilution model. However, equivalent acute toxicity testing is allowed, and is being proposed in this permit, in lieu of chronic toxicity testing for discharges that have a critical dilution of 5% or less.

TOXICITY TESTS	FREQUENCY
Acute static renewal 48 Hour Definitive Toxicity Test using Daphnia pulex	1/Year
Acute static renewal 48 Hour Definitive Toxicity Test using fathead minnow (Pimephales promelas)	1/Year

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional concentrations shall be 0.02%, 0.03%, 0.04%, 0.05%, and 0.07%. The biomonitoring critical dilution is defined as 0.05% effluent. The critical dilution is calculated in Appendix B-1 of this fact sheet. According to the Implementation of State Standards, acute toxicity testing in addition to, or in lieu of, chronic toxicity testing may be imposed for discharges that have a critical dilution of five percent (5%) or less. An acute to chronic ratio has been applied in the calculations. Results of all dilutions shall be documented in a full report according to the test method publication mentioned in the **Biomonitoring Section** under Whole Effluent Toxicity. This full report shall be submitted to the Office of Environmental Compliance as contained in the Reporting Paragraph located in the **Biomonitoring Section** of the permit.

The permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.2383. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Toxic Substances

Subsegment 070201 of the Mississippi River Basin has a designated use of drinking water supply. The nearest intake is approximately 89 river miles downstream of this outfall. This discharge is not considered to have an impact on this drinking water supply. Therefore, monitoring for Toxic Substances will not be required for this facility in this permit.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0051217: Effective: January 1, 2004
Expired: December 31, 2008

Effluent Characteristic	Discharge Limitations Monthly Avg.		Monthly Avg.	Weekly Avg.	Monitoring Requirements Measurement Frequency	Sample Type
Flow	---		Report	Report	Continuous	Recorder
BOD_5	375 lbs/day		30 mg/l	45 mg/l	2/week	6 Hr Composite
TSS	1126 lbs/day		30 mg/l	45 mg/l	2/week	6 Hr Composite
pH	Range (6.0 su – 9.0 su)				2/week	Grab
Fecal Coliform Colonies/100ml	---		200	400	2/week	Grab
Toxic Substances Biomonitoring	---		---	---	1/year	24 Hr Composite
Pimephales promelas	---	Report	Report	---	1/year	24 Hr Comp
Daphnia pulex	---	Report	Report	---	1/year	24 Hr Comp

The permit contains biomonitoring.
The permit contains pollution prevention language.
The permit contains pretreatment option 1 language.

ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates the following most recent inspections performed for this facility.

Date – November 30, 2007
Inspector - LDEQ
Findings and/or Violations –

1. Permit: Satisfactory – The permittee was issued an LPDES Water Discharge Permit, LA0051217, effective dates January 1, 2004, through December 31, 2008.
2. Records/Reports: Satisfactory – DMR's were reviewed onsite. Last DMR to report excursion was September, 2008.
3. Facility Site Review: Satisfactory
4. Effluent: Satisfactory – the oxidation pond and discharge were clear.
5. Flow Measurement: Satisfactory – The permit requirement for flow is Continuous/Recorder.
6. Laboratory: Satisfactory – A & E Testing does the analysis.
7. Operations and Maintenance: Satisfactory

Date – September 8, 2008
Inspector – LDEQ
Findings and/or Violations –

A Hurricane Assessment was conducted to assess damage from Hurricane Gustav. Facility lost power to aerators. Lift stations and discharge pumps operating on generator power. No flooding at the facility.

B) Compliance and/or Administrative Orders

A review of the files indicates that no recent enforcement actions have been administered against this facility.

C) DMR Review

A review of EDMS revealed the following excursions for the period January, 2007 to February, 2009:

Date	Parameter	Monthly Average (mg/l)	Weekly Average (mg.l)	Monthly Average (lbs/day)
08-07	BOD_5	41.74	79.25	
09-07	Fecal Coliform	258.75	1005	
08-08	BOD_5		52.6	

XII. ADDITIONAL INFORMATION:

LDEQ reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future. Additional limitations and/or restrictions are based upon water quality studies and can indicate the need for advanced wastewater treatment. Water quality studies of similar dischargers and receiving water bodies have resulted in monthly average effluent limitations of 5mg/L $CBOD_5$ and 2 mg/L NH_3-N. Prior to upgrading or expanding this facility, the permittee should contact LDEQ to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

The nearest drinking water intake is located approximately 89 river miles downstream from the discharge point.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 1.5 MGD.

Effluent loadings are calculated using the following example:

BOD_5: 8.34 gal/lb x 1.5 MGD x 30 mg/l = 375 lbs/day

The Monitoring Requirements, Sample Types, and Frequency of Sampling for the facility are described below:

Outfall 001 – treated sanitary wastewater

Effluent Characteristics		Monitoring Requirements Measurement Frequency	Sample Type
Flow		Continuous	Recorder
BOD_5		2/week	6 Hr. Composite
Total Suspended Solids		2/week	6 Hr. Composite
Fecal Coliform Bacteria		2/week	Grab
pH		2/week	Grab
Biomonitoring	Daphnia pulex	1/year	24 Hr. Composite
	Pimephales promelas	1/year	24 Hr. Composite

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, LDEQ Option 1 Pretreatment Language is required for this facility.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

Stormwater Discharges

Because the design flow of the Louisiana State Penitentiary Sewerage Treatment Plant is equal to or greater than 1.0 MGD and in accordance with LAC 33:IX.2511.B.14.i, the facility may contain storm water discharges associated with industrial activity. Therefore, in accordance with LAC 33:IX.2511.A.1.b, specific requirements addressing stormwater discharges will be included in the discharge permit.

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV **REFERENCES:**

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards", Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program", Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Department of Public Safety and Corrections, Louisiana State Penitentiary, July 28, 2008.